loss of growth is much greater than when the nutrient artery is destroyed. Closely associated with the bloodvessels is the character of the constituents of the blood. If there is lacking some necessary chemical elements a loss of growth is likely to take place. Thus in certain diseases and in abnormalities of the endocrine system disturbances in growth frequently occur. Trauma is the most frequent cause of disturbances in growth of bones. It must be remembered that an injury in the region of the epiphyseal cartilage plate may be confined entirely to the superficial tissues, to the deeper tissues containing the vascular supply to the epiphyseal cartilage plate, to the epiphyseal cartilage plate itself or may be a combined injury of more than one of these structures. Upon the severity of the destructive process to these vital growing parts depends the resulting disturbances in growth.

Study of Buried Bone.—COWAN and ELY (*Jour. Orthop. Surg.*, 1919, i, 101) made their study upon a series of knee-joint resections in the dog. A patella or the fragment of another bone, embedded fresh in the muscles of the animal from which it was removed, has a tendency to disappear, but does not disappear at least for a long time. In none of their cases had it disappeared completely. Its structure becomes less dense. The bone tissue itself may be replaced by fibrous tissue, especially at or near the circumference, or it may be absorbed. Absorption is the rule in the interior. Occasionally typical rarefying osteitis by osteoclasts is seen. More frequently the process seems to be one of simple absorption—"halisteresis." The method of absorption is often difficult to determine, for about many of the trabeculæ there are no giant cells, no leukocytic infiltration, and no increased vascularity of the marrow. Many of the cells disappear early from the bone. Others stain well after the expiration of a long time. Death of bone is the rule. A patella, with a complete investment of bone and cartilage, does not resist absorption better than a bone fragment whose marrow is exposed to the surrounding tissue. A blood supply is established in the marrow of the buried bone. The marrow has a tendency to become fatty and fibrous, though lymphoid paths may persist. It is engorged in animals who have died with an acute infectious disease, as is the marrow of normal bone in such circumstances. In other words, it is functionating as marrow. Cartilage becomes eroded at its surface, and is replaced by fibrous tissue. Sometimes it disappears completely in areas. Its cells often stain well after a long time. Sometimes they die after a shorter time. The buttress underneath the cartilage almost always disappears early. Roughly, the changes in bone and cartilage are the same as those seen in atrophic, or proliferating arthritis.

Abduction Treatment of Fracture of the Neck of the Femur.—WHITMAN (*Surg., Gynec. and Obst.*, 1918, xxvii, 578) says that non-union occurs in childhood under the same circumstances as in adult life, although there can be no question of the capacity of the tissues for repair. Repair after non-union is the rule when at open operation the fragments are freshened and adjusted, indicating that fixation in apposition is the first essential of success. Experience in bone grafting proves that union is possible under far less favorable conditions, as regards the blood supply, than in fracture of the neck of the femur. The obstacles to repair, whether intrinsic or extrinsic, actual or fanciful, that have thus far justified inadequacy and neglect furnish the strongest presumptive evidence in favor of opportunity as the determining factor in the result. It has been already abundantly proved by practical experience that repair is possible in every variety of fracture at the hip and at any age, and although it cannot be asserted that opportunity will always assure success, it is self-evident that want of opportunity assures failure. Consequently, the responsibility for opportunity, upon which the result is primarily dependent, rests upon the one who selects and applies the treatment. This conclusion, however revolutionary as contrasted with conventional teaching, is, in effect, simply that surgical principles, whose application has been made practicable by the abduction method, should now govern the treatment of this as of other fractures.

Shall Operation for Hypertrophied Prostate be Done in Two Stages.—Wright (*Surg., Gynec. and Obst.*, 1919, xxviii, 56) says that all cases, including those where only a small amount of residual urine is present, should be given several days of preliminary drainage before prostatectomy is done. Since cystotomy, which gives permanent drainage to the bladder and the pelvis of the kidneys, has been followed by death, the author believes it is better that drainage should be made by use of the catheter. Cystotomy should be reserved for use in those cases where catheterization, for any reason, is impossible; or, for use in those cases of acute cystitis that do not do well with permanent catheter. Since uremia has been known to follow the opening of a bladder which contained only 45 c.c. of residual urine, if compelled to do a cystotomy, it should only be performed after catheterization or aspiration of the bladder has been carried on for several days.

Carcinoma of the Stomach.—Douglas (*Surg., Gynec. and Obst.*, 1919, xxviii, 76) says that the conclusion reached by the pathologists of the Mayo Clinic where probably more material from excisions of ulcers and early carcinomata are examined with the greatest care than anywhere else in the world, should carry great conviction, even considering the work of Bullock. The considerable but not tabulated reports in cancer in a small area of the edge of an old ulcer, is proof positive that the change does occur, confirming the above statement. The evidence that cancer develops from chronic irritation and ulcers in other localities, adds probability that the same metamorphosis occurs in the stomach. The agreement of those who are opposed to the theory of carcinomatous degeneration in a large percentage of ulcers that a previous ulcer history may be obtained in from 5 to 17 per cent. together with the facts that diagnosis is not always certain, and that ulcers may perforate without previous symptoms, and that a long ulcer history is not contrary proof, would seem at least to make it a fair presumption that ulcer preceded cancer in a larger percentage of cases than their figures indicated. The results after gastro-enterostomy are the strongest presumptive evidence against carcinomatous degeneration of ulcers, but an explanation is not inconceivable, based on the rapid healing which usually occurs in ulcers near the pylorus after operation, and the theory of a possible inhibition of cancer formation after gastro-enterostomy, according to the theory of Gressot, on the possible digestion of